Abstract

Title: Determining dependencies between the explosive power of the upper extremities and performance in sprint on kayak of white water paddlers.

Aims: Determine the relationship between the explosive power of upper limbs and trunk, as demonstrated by selected exercises in the gym with a performance at the sprint distance of 40 meters in calm water.

Methods: Explosive power of upper limbs and trunk were tested through devices Myotest® Pro 2 in exercises bench - press, bench – pull and pull - ups. Sprint on 40 meters was measured manually by three timekeepers, the final time was the average time. Relationship between performance in the sprint and explosive strength was assessed through Pearson correlation coefficient.

Results: There was found moderate degree of dependence in some indicators of explosive power detected by Myotest® Pro 2. Specifically, the maximum force in the exercise bench - press (-0.42) and the pull-up (-0.42) and the maximum repetition speed at an exercise bench - press (-0.51). For other indicators, there was no evidence or only a very low level of correlation dependencies. The results, however, evident that the sprint fastest probands achieved in the majority of the measured values explosive force well above average results. Since it was a pilot research, we can not draw firm conclusions for the time being. It should be a relationship of explosive power exercises at selected speeds paddling further investigation.

Keywords: Explosive power, white water slalom, Myotest® Pro 2,